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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,183	10/06/2003	David Joseph Kropaczek	24GA5999	2333

33727 7590 06/29/2006

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EXAMINER

PHAN, THAI Q

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/678,183

Applicant(s)

KROPACZEK ET AL.

Examiner

Thai Phan

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This Office Action is in response to patent application S/N: 10/678,183, filed on 10/06/2003. Claims 1-16 are pending in the action.

#### ***Drawings***

The Drawings filed on 10/06/2003 are acceptable for examination.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Chao et al, US patent application publication no. 2004/0196946.

As per claim 1, Chao anticipates a method for creating and loading nuclear core fuel pattern with feature limitations very identical to the claimed invention. According to Chao, the method includes selectively assigning using graphical user interface (38) providing a graphical representation of a nuclear reactor core, fuel assembly or bundle, categories or reactivity levels, refinements to fuel bundle positions and to load fuel pattern in the graphical representation ([0008], [0013], [0015], [0029], [0033]).

As per claim 2, Chao anticipates a plurality of nuclear fuel types as claimed ([0033]-[0036]).

As per claims 3-4 and 6-13, Chao anticipates the claimed steps as selectively setting fuel assembly or bundle group, amounts of fuels, fuel types (exposed, reinserted, used), finer or coarsen reactivity, setting template fields for loading patterns, or loading positions, etc ([0033]-[0038]).

As per claim 5, Chao anticipates quadrants in the graphical representation (Fig. 3, [0032]).

As per claims 14-16, Chao anticipates a method for creating and loading nuclear core fuel pattern with feature limitations very identical to the claimed invention. According to Chao, the method and system includes a graphical user interface (38) for selectively assigning fuel reactivity types or bundle group, and providing a graphical representation of a nuclear reactor core, fuel assembly or bundle, categories or reactivity levels, refinements to fuel bundle positions and to load fuel pattern to a desire positions (loading map) in the graphical representation ([0008], [0013], [0015], [0029], [0033]).

### ***Conclusion***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
1. US patent no. 5,406,598, issued to Takeuchi et al, on Apr. 1995
2. US patent no. 6,631,384, issued to Richman et al, on Oct. 2003

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3. US patent no. 6,931,090, issued to Chao et al, Aug. 2005
4. US patent application publication no. 2004/0101083, issued to Russell et al, on May 2004
5. US patent application publication no. 2004/0196946, issued to Chao et al, on Oct. 2004
6. US patent application publication no. 2004/0191734, issued to Russell et al, on Sept. 2004
7. US patent application publication no. 2005/0086036, issued to Kropaxzek et al, on Apr. 2005

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thai Phan whose telephone number is 571-272-3783.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on 571-272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

June 23, 2006

  
Thai Phan  
Patent Examiner